

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number  
**WO 2005/069471 A1**

(51) International Patent Classification<sup>7</sup>: **H02M 7/42**  
(21) International Application Number:  
PCT/JP2004/017830

(74) Agents: **FUKAMI, Hisao** et al.; Fukami Patent Office,  
Mitsui Sumitomo Bank Minamimorimachi Bldg., 1-29,  
Minamimorimachi 2-chome, Kita-ku, Osaka-shi, Osaka,  
5300054 (JP).

(22) International Filing Date:  
24 November 2004 (24.11.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-005604 13 January 2004 (13.01.2004) JP

(71) Applicant (*for all designated States except US*): **TOYOTA JIDOSHA KABUSHIKI KAISHA** [JP/JP]; 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

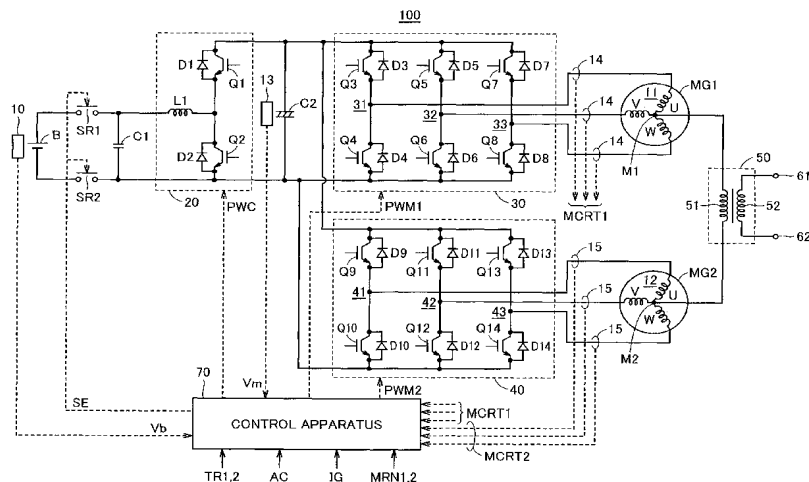
(75) Inventors/Applicants (*for US only*): **ISHIKAWA, Tet-suhiro** [JP/JP]; c/o TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP).  
**FUJII, Satoshi** [JP/JP]; c/o TOYOTA COMMUNICATION SYSTEMS CO., LTD., 1-26-12, Aoi, Higashi-ku, Nagoya-shi, Aichi, 4610004 (JP).

Published:

— with international search report

[Continued on next page]

(54) Title: AC VOLTAGE GENERATING APPARATUS AND MOTIVE POWER OUTPUTTING APPARATUS



(57) Abstract: A motive power outputting apparatus includes motor generators (MG1, MG2), inverters (30, 40), and a transformer (50). The motor generator (MG1) includes a three-phase coil (11), and the motor generator (MG2) includes a three-phase coil (12). The inverter (30) allows an in-phase AC current to pass through an U-phase coil, a V-phase coil and a W-phase coil of the three-phase coil (11). The inverter (40) allows an in-phase AC current, which has a phase being inverted relative to that of the in-phase AC current passing through the three-phase coil (11), to pass through an U-phase coil, a V-phase coil and a W-phase coil of the three-phase coil (12). The transformer (50) converts an AC voltage generated in a primary coil (51) and outputs a commercial-power-source AC voltage to terminals (61, 62).

WO 2005/069471 A1



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*